

the attention of the botanists of the world toward botanical activity in America? If the present congress does not prove all that its well wishers could desire, it may yet be the means of eventually securing upon American soil the truly representative international congress to which all will be willing to concede authority.

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## CURRENT LITERATURE.

### A guide to wild flowers.

A short cut is always in order. Very frequently, however, one needs to be well posted in the geography of a country before a short cut is safe. It seems to us so with the book before us.<sup>1</sup>

Mrs. Dana endeavors to make a book which shall enable one to name plants which he is able to find without using "some key which positively bristles with technical terms and outlandish titles," and this because "their names alone serve as a clue to their entire histories." She has selected about 400 of the most conspicuous flowering plants of the northern United States, omitting the commonest and best known, as well as those with inconspicuous flowers, or those which are rare or introduced as escapes from gardens. Illustrations of very decided artistic excellence and accuracy are used freely. Ninety-seven of the 104 full page plates are original. Those species which are of the greatest beauty, interest, or frequency, have been selected for these drawings.

The plants are arranged in accordance with their colors and the season of blossoming. White, yellow, pink, red, blue and purple, and "miscellaneous" are the six main groups. It would seem however that some further subheads than these would have been exceedingly convenient. The descriptions of the plants with white blossoms cover nearly 100 pages, and one has to look over a considerable number of these in order to find any plant which he may have in hand. Nearly half of the white flowers enumerated belong to distinctively spring plants, and forty pages is rather a large area through which to look for the names. In our judgment the book would have been greatly improved had the author introduced some simple artificial keys which would have guided one in the path in which he is now left to grope.

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<sup>1</sup>DANA, MRS. WILLIAM STARR:—How to know the wild flowers: a guide to the names, haunts, and habits of our common wild flowers. Illustrated by Marion Satterlee. Third edition. 12mo. pp. xvi + 298. pl. 104. New York: Chas. Scribner's Sons. 1893.

The book will be for amateurs a useful supplement to Gray's Manual, but it is doubtful if they will reach certainty with this book so readily as with that. The difference in the number of technical terms which it is necessary to know in order to use the two books is not so great as appears at first sight.

#### A reader in botany.<sup>1</sup>

The second part of Miss Newell's Reader in Botany is as admirable in its selections and in the topics chosen as has been her other botanical work. The articles are taken from such authors as Darwin, Sprengel, Kerner von Marilaun, Wallace, Gray, Grant Allen, Lubbock, Halsted, and Mrs. Buckley. Several of the chapters are original with the author, and one on the common dandelion has been written for the reader by Mr. F. Le Roy Sargent. The topics chosen are well calculated to stimulate interest in the minds of young students, and they are all directed toward the interesting and attractive phases of plant life. Here are some of the subjects:—cross fertilization; protection of pollen; attractive and protective colors of fruits; weeds; how seeds travel; habits of insects in relation to flowers; epochs in the history of botany.

If such books were more often seen in high schools and students were taught thus to observe the habits of plants, we should hear less complaint from students that they never did like botany, and we should have less popular misconception of what botany really is.

#### Minor Notices.

DR. B. L. ROBINSON has published his present views of certain caryophyllaceous groups<sup>2</sup>, views that are of special interest as they have to do with the forthcoming part of the Synoptical Flora. The closely allied genera *Silene*, *Lychnis*, and *Agrostemma* are kept apart on the old lines. *Silene* is credited with fifty species, seven of which are introduced, and one is new, another being transferred from *Lychnis*. Several new varieties are made, *S. Douglasii* being especially favored. *Lychnis* also contains a new species. Otherwise, the author has given a very conservative presentation of a group in which there are several vexed questions as to generic delimitations. In this connection attention may be called to the suggestion of Mr. Frederic N. Williams<sup>3</sup> as to

<sup>1</sup>NEWELL, JANE H.:—A reader in botany. Part 2, Flower and fruit. Selected and adapted from well known authors. 12mo, pp. vi+179, figs. 36. Boston: Ginn & Co. 1893.

<sup>2</sup>ROBINSON, B. L.:—The North American *Sileneæ* and *Polycarpeæ*. Proc. Amer. Acad. xxviii. 124-155. [June 22, 1893.]

<sup>3</sup>WILLIAMS, FREDERIC N.:—The disintegration of *Lychnis*. Journal of Botany, xxxi. (1893). 167.

the rearrangement of generic lines. Taking the species represented by *Silene*, *Lychnis*, and *Agrostemma*, he finds that there are two primary subdivisions based on whether the capsule is truly unilocular or has remains of dissepiments at base. The latter will include most species of *Silene*, and exclude *S. noctiflora* and *S. Virginica*, for which (with some species of *Lychnis*) Röhling's genus *Melandryum* stands waiting. Further subdivisions are suggested, which are summarized in a table presenting no fewer than nine genera. This is surely at the other extreme from the view which would consider that all three allied species should be merged into one group. The nine genera suggested by Mr. Williams are *Agrostemma*, *Lychnis* (very much restricted), *Coronaria* (a Linnean genus revived to contain certain species usually referred to *Lychnis*), *Petrocoptis* (a genus founded by A. Braun to further circumscribe *Lychnis*), *Heliosperma* (a genus of Reichenbach founded for the same purpose), and *Melandryum*, all of which belong to the *Lychnis*-group of unilocular capsules. The proposed genera of the *Silene*-group are *Vicaria* of Röhling, *Eudianthe* of Reichenbach and *Silene*.

DR. ROLAND THAXTER has just published a fourth contribution on the *Laboulbeniaceæ*<sup>1</sup>. These papers are but preliminary to an illustrated monograph of the group. The present paper is based upon material collected during the past year in Maine and Massachusetts and also from the collections of *Coleoptera* in the Museum of Comparative Zoology in Cambridge. The result is astonishing, for the known species are doubled and seven new genera are proposed, and this together with the great modifications in forms noticed, indicates the existence of a very large and varied group. In two of the new genera the sexes are found separated upon distinct individuals. The appendages peculiar to the group, and heretofore called "pseudoparaphyses," are now recognized as sexual and are designated as "antheridial appendages." Of the fifty-two new species described in this paper, twenty are referred to the genus *Laboulbenia*, five each to *Acanthomyces* and *Ceratomyces*, two each to *Heimatomyces* and *Corethromyces*, and one each to *Cantharomyces* and *Peyritschiella*; while the remaining forms are included under new genera as follows: *Haplomyces*, having three species; *Rhadinomyces* and *Amorphomyces*, each with two species; *Dichomyces*, *Chaetomyces*, *Idiomyces*, and *Dimorphomyces*, each including a single species.

MISS ALICE EASTWOOD has published a list<sup>2</sup> of plants growing

<sup>1</sup>THAXTER, ROLAND:—New species of *Laboulbeniaceæ* from various localities. *Proc. Amer. Acad.* xxviii. 156-188. [May 10, 1893.]

<sup>2</sup>EASTWOOD, ALICE:—A popular flora of Denver, Colorado. Zoe Publishing Co. San Francisco. [No date.]

about Denver. It is meant to be something more than a list, for it contains more or less of popular description, but in the absence of analytical keys it can hardly aid the beginner in discovering the names of plants. It can be used as a useful check-list by the local botanist, and gives more or less information to the general botanist concerning the Denver flora.

DR. ALFRED C. STOKES has prepared a set of analytical keys<sup>1</sup> for the "fresh-water algæ and Desmidiæ of the United States." In his introduction he makes a strong plea for "analytical keys," claiming that the ability to readily discover the name of an object will often attract the beginner to further study. These keys, founded upon Rev. Francis Wolle's works, will probably enable amateurs to discover the names of the fresh-water algæ readily enough. There is no question that such handy keys of groups stimulate their study.

A HEAVY PAMPHLET from the division of vegetable pathology of the U. S. Department of Agriculture forms bulletin no. 4, and is devoted to the work of Dr. Erwin F. Smith upon peach yellows. This bulletin gives the experiments and conclusions of four years' work in testing the value of commercial and other fertilizers for the prevention and cure of yellows. In some parts of the country this method has been much relied upon, having been supported by very good scientific authority. The extended and careful labors of Dr. Smith, however, show it to be worthless. The experiments upon which this conclusion is based have been very thorough and form an admirable continuation of Dr. Smith's previous researches upon yellows.

DR. L. M. UNDERWOOD has published in the *Memoirs of the Torrey Botanical Club* an index of the literature of the Hepaticæ. The purpose of this index is "to present an author catalogue of the publications relating to this group, supplemented by a topical index for the purpose of more ready reference." It is to be completed by "an index of all species described, with references to each of the genera recognized at the present time, and a classified arrangement of the species to show our present knowledge of their geographic distribution." It is needless to say that the work will be exceedingly useful to all students of the Hepaticæ. The present part forms the first ninety-one pages of the fourth volume of the *Memoirs*.

THE REPORT of the Division of Vegetable Pathology of the U. S. Dep't of Agriculture for 1892, by the chief, Mr. B. T. Galloway, deals

<sup>1</sup>STOKES, DR. ALFRED C.:—Analytical Keys to the genera and species of the fresh water algæ and the Desmidiæ of the United States. pp. 117. One plan. Edward F. Bigelow, Publisher. Portland, Conn. 1893.

with the work which has been carried on during the year upon grain rust, leaf blight of pear and cherry, black rot of the grape, gunshot disease and rust of almond and prune, peach yellows and rosette, pear blight, and other diseases of cultivated plants. The results are of great economic value. Attention is called to the urgent necessity of giving more attention to questions of physiology in connection with pathological investigations.

AN AID TO THE STUDY of the plants of Queensland has been issued from the government press at Brisbane, for free distribution, prepared by F. M. Bailey, F. L. S., colonial botanist.<sup>1</sup> It embraces some account of the morphology and physiology of flowering plants, an extended glossary of botanical terms, and the characters of seven of the most important orders of Australian plants, i. e., Leguminosæ, Myrtaceæ, Rubiaceæ, Compositæ, Proteaceæ, Euphorbiaceæ, and Gramineæ, together with the characters of all the tribes and of one genus and species under each order.

PART SEVEN of the first volume of Contributions from the National Herbarium is devoted to a systematic and alphabetic index to new species of North American phanerogams and pteridophytes published in 1892. It is compiled by Miss Josephine A. Clark of the Herbarium Library. It is accompanied by a supplement to the index for 1891 covering several pages, including chiefly some plants from Costa Rica, which were overlooked in the publication of the preceding year.

AN INTERESTING pamphlet of thirty-seven pages, by Dr. W. J. Beal, has recently been distributed. It contains (1) the report of Dr. Beal as professor of botany in the Michigan Agricultural College, for the year ending June 30, 1892, (2) a chronological history of the botanical department of the college, and (3) a full report of the exercises at the laying of the corner stone of the new botanical laboratory.

THE ELEVENTH part of Husnot's *Muscologia Gallica* has just been issued. It deals with several of the genera which have been heretofore in this country reckoned as sub-genera of *Hypnum*. Ten plates accompany the part. The work evidently draws near its close, and maintains its high standard.

A REPORT ON THE SISAL HEMP of Florida, and other fiber-producing agaves, has been prepared by Chas. R. Dodge, of the U. S. Department of Agriculture. It is well illustrated and contains much interesting information.

<sup>1</sup>Bailey, F. M.:—A companion for the Queensland student of plant life. pp. 108. 8vo. Brisbane, Government Printer; 1893.

<sup>2</sup>Dodge, C. R.:—A report on the leaf fibers of the United States. Rep. no. 5 on Fiber Investigations, Dept. of Agriculture. pp. 73. 8vo. 10 plates and 12 figs. in text. Washington; Gov't. Printing Office. 1893.